

## APPENDIX 1

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\*Facsimile of Hooker's Antarctic Journal is available online at: <https://archive.org/details/antarcticjournal00hook>

### APPENDIX 1 – PART 1

TRANSCRIPTION OF PAGES 30–52 OF THE TRAVELOGUE OF SIR JOSEPH DALTON HOOKER. THEY DESCRIBE HIS VISIT TO THE ISLAND OF SANTIAGO (NOVEMBER 13–20, 1839) DURING HIS VOYAGE TO THE ANTARCTIC

[Note from the authors of this contribution: Page numbers were handwritten in pencil.

Superscript numeric notes regarding parts of the text mostly pertinent to plants are also provided with their explanation at the end of the transcribed text]

[...]

Nov. 13

This morning we were close to the Island of St. Jago one of the Cape Verde Islands. The North part consists of bare rounded hills based upon flat ledges, their sides are cut by the same parallel valleys that were so common in Teneriffe, but appeared nearly bare of vegetation and of a reddish brown colour.

As we ran along the coast towards the southward of the hills assumed quite a different aspect being very sharply peaked and cut into fantastic shape, none of them seemed high (2500 feet?) and many of them from their needle shape summit quite inaccessible. I afterwards understood that the Peak of St Antonio<sup>1</sup> is 5 or 6000 feet. The clearness of the atmosphere made the Mts. look lower than they proved when I visited the centre of the Island. All was grievously barren and parched looking. Many of the valleys had the appearance of oblong squares cut in the table land at the base of the hills. The Island of St. Jago lay far for the Westward, it is short and very bright crowned by a volcanic cone with a split crater at the top. When within about 4 lies from the shore, numerous insects came on board, among others

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A *Ceratonia* of African form, *Polyommatus* sp. of the Painted lady which I killed from being an old friend and several other species.

Nov. 14 --- Porto Praya<sup>2</sup> roads.--- Today at 12 the "Eberus"<sup>3</sup> cast anchor close to this magnificent little town. On each side of the bay, perpendicular, flat topped cliffs, about 100 feet high, stretch along the coast, they are of black trap rocks, sometimes columnar and about half way up, intersected by the broad white horizontal bands, which Mr. Darwin<sup>4</sup> describes and it is

the ancient sea beach of shell sand, resting upon one layer of lava, and covered by another; it presents a most singular appearance.

The town itself stands in the middle of the Bay upon the top of a long detached cliff, it is the most miserable appearance; the country for many miles consists of successive arid flats covered by yellow withered grass<sup>5</sup>, and here and there, rises a short conical hill of from 4-800 feet high sometimes covered to the summit with withered herbage, and others, composed altogether of red volcanic Scoria. Close to the town there are a few coconut trees. To the right of the Bay there is a small Island evidently detached from the mountain and separated from it by a shallow channel, it is called Quail Island<sup>6</sup>. The central part of St. Jago consists of a very mountainous region full of acute peaks, where summits are often split like crater of a volcano, which is never the case in the low hills near the town, that I have observed; the highest of them the Peak of St. Antonio<sup>1</sup> presents a very fine appearance from the Bay, its highest is laid to be 5000 ft. On our arrival a slaving schooner was lying in the Bay, and I understood that a more cautious one, had made sail on discovering us heaving in sight. The present

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one remained some days, and when taking her departure, her drunken skipper salute us, and mocking, told us he was going nigger hunting to the Coast. We had no commission to catch slaves, or to do mischief further than resenting personal injuries [text “We had no... resenting personal injuries” is found in verso of Page 31].

This afternoon I landed, along with the Surgeon<sup>7</sup>, Purser<sup>8</sup>, and Mr. Wiltmor<sup>9</sup>, we proceeded first to the British Consul, a Mr. Barton, who was just recovering from the coast fever<sup>10</sup>, and looked most wretchedly, a mere skeleton of what he was. I was must struck by it, as his was the case I have seen of a disease, of which every one has heard so much. The thermometer outside a verandah, in the shade and free from radiation, stood at 84.2 Fahr, and the Dew point 69. Showing 15.2 degrees of difference between the temperature of the air and that at which dew would be formed. His house and those all the few inhabitants, was like of all Portuguese with no apparent attention to comfort.

The town is inhabited by blacks, free slaves, who very lazily pursue various trades. The Negro huts are all low cottages, in which the natives live in great poverty. They are however a fine active race when they like; the men go clothed in cast off European clothes, and the women in loose wrappers dyed blue or red, of native manufacture, and adorned with anklets, armlets and necklaces of beads and bangles, they are a most amusingly polite race both to one another and to the European visitors. The town boasts of a wretched church, which requires to be pointed out to be discovered, barracks with corps soldiers, three billiard rooms, for as many Portuguese inhabitants, and a square surrounded by cottages, in which are sold oranges and tropical fruit. Horses are also kept here on hire, or rather ponies of the worse description.

The oranges here are the finest in the world specially one kind called Nury oranges which often average ½ lb a piece; lemons of immense size and equally good. All tropical fruits seemed to do well here with not care [text “The oranges here... with no care” is found in verso of Page 31].

We landed among some steep rocks to the right of the town, and walking along the beach, ascending a most rugged road up to the town, which was loosely built and filthily dirty, swarming

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with pigs and niggers. After paying our addresses to the Consul, we descended at the other end of the Town by a similar road to the one which we had ascended, and came to beautiful growth of Coconuts, bananas, Palmettos<sup>11</sup>, etc., they grew beside a small stream of dirty water and flanked the precipice on which the town is built; being the first I had seen they delighted me extremely. Those who have not been in a tropical climate can have no idea of the graceful beauty of this tree, to me it quite compensate for the otherwise total barrenness of the scene. The ground was scorched and dry, and how the plants that grew on it, contrived to exist, I was puzzle to conceive; nothing save the Palms<sup>11</sup>, above a foot or two high seemed to grow. We trod upon lava streams covered with Khami sand, this was covered with yellow grass which springs up after the rains, and withering, forms natural hay for the numerous flocks of goats and cattle that feed upon this alone, without ever drinking. One queer plant a large red flowered Convolvulus<sup>12</sup> grew everywhere; other plants were chiefly small Sidas<sup>13</sup> and Leguminous plants<sup>14</sup>.

Our intention was to visit the famous Baobab<sup>15</sup> tree that grows within a couple of miles from the Town, but missing our way, we preceded to the westward of the Island, by small footpath, roads, there are none.

Innumerable crickets and locust were skipping and flying about in every direction, some of a very large size, there were a very few insects of any description. The ground is every full of conical holes, which I took to be the nest of the Ant Lion, as however, I could never find the

animal digging, I afterwards thought they might belong to a very common, large black bodied and winged Sphinx with yellow Antenna [text "The ground is... with yellow Antenna" is found on verso of Page 32].

Our path wound along the bases of low hills composed of trap whose bases seemed washed by the lava streams that form the ground of some of the valleys. At other times we came upon plains stretching in some directions for an immense length. The bottoms of some of the valleys are full of Palma Christi<sup>16</sup> bushes, the seeds of which the natives bruise, when they yield a beautiful oil for their lamps. I [illeg.] the Acacias<sup>17</sup> shed their leaves [text "I [illeg.] the Acacias shed their leaves" is found on verso of Page 33]

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stunted Acacias frequently grew on the plains and valleys whose tops, when they were exposed to the continued steady current of the trade winds, are bent at right angles with their stems; they very rarely bear any foliage, yet their branches when broken are found alive and green. A beautiful and large species of King fisher the *Dacelo jagoensis* sits on its branches watching insects, this with a true sparrow in great numbers flocks of small species of Finch are the only small birds I have seen on the Island. The Castor oil bushes<sup>16</sup> are frequented by a very large and beautiful kind of spider. It builds its nest throwing an immensely long and strong thread, (I measured one about 12 feet long), from one branch to another, or that of an opposite tree, how, except it is aided by the electricity of the strong air of this climate, I am at loss to conceive, from this it suspends a beautiful net, nearly circular in form, except where the suspending thread forms a chord to the arc. In the centre of this huge fellow takes his stand vividly marked with bands of red, yellow and black, and near him I have seen the remains of locust  $3\frac{1}{4}$  inch long. Once indeed

I found a locust two inches long completely entangled. The species is gregarious and in different corners of the nest there are often as many as 40-50 hungry retainers or poor relations with long legs, lank bellies and more ignoble quarry beside them. One large spider invariably remains chief in the centre, whether the others are his progeny or usurpers, to whom he gives accommodation as long as they remain of a size not to be dangerous, I cannot tell, but this I have constantly observed, that they never approached the big one. The regularity of the net inclines me to believe that it is the work of one animal. In cool quite valleys the number of these insects is quite astonishing, one establishment sometimes covering

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a space of 3 or 4 square yards. He is very agile and hence difficult to catch; at first, I confess I was rather afraid of him, distinct visions of Tarantulas and my having no fiddle floating before me; a nigger seeing my perplexity came to the chase and very ingeniously crept behind the bushes, so that the spider could not see him, there, squatted upon his hands he every now and then darted upon one, and kept me bottling fast enough.

After proceeding for some way over lava currents, we descended a small naked flat bottomed valley, there was a little water in it but quite hot. Its temperature was 86, in it there was a *Colymbates* and *Gyrinus*, on the black rocks near it, a most agile *Cicindela*. We again came upon an open plain on which were flocks of goats and many rocks, I here saw a Vulture, Vultur.

We soon came to a nigger hut, the family treated us very civilly, giving us some of the most magnificent oranges I ever ate, of an immense size, and very sweet; they were all huddled in one hut, were cleanly dressed and all had good humoured countenances, indeed I never saw a nigger that had not, they are invincibly good nature, laughing and smiling at everything.

Having proceeded 5 miles, without encountering the Baobab tree<sup>15</sup>, the object of our research, we stuck off to the North and with Mr. Wilmor<sup>9</sup> I commenced the ascent of a hill the greenish attracted my attention. We ascended in stony sides and after some fatigue, gained the summit, the sun was intensely hot and my feet were full of the carpels of a species of *Bidens*<sup>18</sup> which infested the plains, its barbed teeth sticking through my stockings and trousers into the flesh, in such numbers, that my legs and feet looked like huge pincushion stuck full of black pins. The hill was about 800 feet high, its sides were stony, with a few *Acacia* trees<sup>19</sup>

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on which were swarms of little Finches, the males marked with black, frequently separated branches from the females, which are of an ashen grey colour. Near the summit were numerous *Palma Christi*<sup>16</sup> bushes and one or two others; the stony top was covered with a live-oat (of my younger days) and other grasses, several species of *Convolvulus*<sup>20</sup>, etc. In most places the summit resembles that of Ben Nevis<sup>21</sup>, the rocks however were volcanic and not porphyry, they were sometimes covered with an *Asclepiadiaceous*<sup>22</sup> plant with terete flagelliform glaucous leafless stems, and that so thickly, that nothing else could be seen but one glaucous mass of many yards long and broad which attracted me from a considerable distance, the plant bore here and there small flowers. Here we put up several quail, and some flocks of Galena or Guinea Fowl, there were as many as 7 or 8 in the covey, they fly neither fast nor far, but are so wary that they are hardly ever approached within a gun shot. Captain Ross<sup>23</sup> procured some afterwards, their average weight was 2 ¼ lbs... The natives get them by sitting under the shrubs they frequently till night, when they drive whole charges of shots into them from within a yard or two [text "Captain Ross procured... yard or two" is found on verso of Page 35]. We afterwards came



upon the brink of a precipice, I saw them sitting at considerable distance below us, upon Palma Christi<sup>16</sup> bushes, they looked like barn fowl, and appeared about 1 ½ time as big as a black cock. From the top of the hills a very beautiful scene was presented to us; to the North and the East were high mountains of the interior; to the west the sea, and immediately below us was a beautiful valley, filled with a tropical vegetation of the liveliest green; it appear an Oasis in the desert, full of Cocoa nuts, dates, Palmettos, Bananas, Papaws, Oranges and Limes Cassava etc. The Palmetto is used for straw hats and brushes<sup>24</sup>[,] sugar cane and maize [text “The Palmetto is... hats and brushes” is found on verso of Page 35]. A little to the back of the Town, I distinguished the Baobab tree<sup>15</sup> and [illeg.] we had [illeg.] wandered [illeg.] of our way in search of it.

After taking a specimen of the rock on which we stood, which contained small crystals of Epidote? we descended and walked back to Porto Praya, by a different but not more interesting rout than the one by which we had come.

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After refreshing ourselves at the Consul's, we procured a boat and went on board, Mr. McCormick<sup>25</sup> arrived about a half an hour afterwards. On our return we found that the Consul had very civilly left word for us to prepare ourselves for the coast fever<sup>10</sup>, which was certain to lay hold all Europeans who should expose themselves as we had done.

Friday Nov.15 th --- Today, along with Mr. Wilmot<sup>9</sup> I set up to examine the rocks along the shore, or rather I to botanize and he to geologise. We ascended to the bed and found it about 15 – 20 feet this, running quite parallel with the horizon, full of fossil shells; it consisted in the centre of soft yellowish crumbly lime, resting on a bed of lava, which has been once the bottom of the

sea, and on which, this artificial shore or beach had been formed, solely by the life and death of shells during many ages. Over this shell sand stone beach, another stream of lava has run, converting the shell sand into carbonate of lime crystalized, or collected into nodules; numerous fossil shells were interspersed through it, some indeed along with small masses of lime stone, were taken up into the substance of the liquid stream, when the shell was hardened to a great degree, and the lime effloresced beautifully, like needle-zeolite in miniature. The rock above the bed wherever there had been fissure, were coated with hard crystallised carbonate of lime, --- Mr. Darwin describes this metamorphosis beautifully, and adds, that all the fossil shells are identical with those now found in the neighbouring ocean.

Of Maritime plants I found only one species, that was strictly so. The Asclepiadeous plants<sup>26</sup> grew here in profusion, and I have remarked that it seems confined to the sea side and mountain tops, like several British plants.

Saw several Kestrel Hawks. We were joined by another party consisting of Mr. McCormick<sup>25</sup> and Mr. Molloy<sup>27</sup> of the "Terror"<sup>3</sup> the former

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geologising, the later shooting. Under Mr. McCormick<sup>25</sup> guidance we arranged to go and visit a curious ravine opening out into the sea a few miles off. We accordingly ascended from the cliff and came upon an immense Prairie, covered with stones that were hidden by the withered grass<sup>5</sup>. We commenced tramping over this to eastward of the Island. The sun was scorching and the walking most laborious, my boots that I had put on to guard my legs from the Bidens<sup>18</sup> carrels were soon cut through, and the black stones were so hot that my hand could hardly bear them; the thermometer in the shade rose to 85[°] Fahr. and the point of the deposition of dew 18

degrees below it. We crossed some shallow rocky valleys, and continued our walk, till we arrived at some nigger cottages where we found a party of the “Terror”<sup>3</sup>. The inhabitants of these cottages are very poor, the men wok a little, and the women spin from the distaff, the partitions of the cottages are made of Palmetto<sup>24</sup> leaf matting, the utensils of Gourds<sup>28</sup> [text “The inhabitants of... utensils of Gourds” is found on verso of Page 37]. Quail shooting with a dog, the only one in the Island that calls itself sporting, it is a regular coach or carriage dog, but points very well.

After being hospitably entertained in one of the huts, we proceeded for some miles, my companions every now and then shooting Quails which sat so close that they were only put up by treading among them.

We at last came suddenly to the valley, it was a deep Gorge about half a mile long and 100 yrds broad, with precipitous sides, perhaps 400 ft deep; when it opens into the sea; the broad limestone band was very distinct. The place was full of owls and Kestrel Hawks[,] a wild monkey, the first I had seen, was running with remarkable agility along the opposite cliff, he had a tail half as long again as his body which manoeuvred with great agility. Wild cats *Felis* are sometimes seen. The Bisam Cat according to the Penny Cyclopaedia [text “The Bisam Cat... the Penny Cyclopaedia” is found on verso of Page 37].

We now descended to the bottom or rather scrambled down, there were 8-10 species of plants, chiefly *Sidas*<sup>13</sup> but none peculiar; creeping *Convolvulus*<sup>20</sup>, castor oil bushes<sup>16</sup> and a small *Linaria*<sup>29</sup> were very common. The spiders were a perfect nuisance their nests being always in the way and adhering to our faces or cloths.

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It was now growing late and we commenced our return, striking off in a direction that brought us to the back of the town and to the valley, which contains the Baobab<sup>15</sup> trees. The tree itself is not striking, but for the size of its trunk, its height is about 50 ft. with branches of immense size but which does not spread far. At a distance it somewhat resembled me of an English oak. The trunk is very short, much flattened or wedge shaped, and divides about 3 ft above the ground. Bark smooth for a tree of the size and soft. Diameter of the trunk 4 ½ ft. above the ground, where it is greatest, about 15 ft. in one direction, in another 12 ft. Circumference 38 feet [text "Circumference 38 feet" is found in verso of Page 38"].

It appears to me a fast going tree, and Capt. Ross<sup>23</sup>, who afterwards visited it, thinks that the age assigned to it is probably much exaggerated; of this however no one can judge, except one, who like Adamson, has seen them cut down. There are no other trees of the kind near to it. There are however others in the Island, but none of any size. The fruit was unripe and I obtained only one bud, which, opened by the time I got on board, it measured inches across, was of a white color, faintly tinged with pink, and emitted a smell that we compared to the currant bushes, but it was more sickly.

On return to Porto Praya, we were surprised at finding a shop or venda, where English wines and malt liquors were sold in profusion; they were taken from the wreck of the Rover a few months before; that vessel was wrecked on Quail Island<sup>6</sup> and her stores sold in the Island at most advantageous rate. We bought some port at 2[illeg.] per bottle, it was exceedingly good.

Saturday 15 Nov --- To - day I landed with Mr. Mc Cormick<sup>25</sup> and Mr. Hallet<sup>30</sup>, the purser to visit the Valley of St. Domingo<sup>31</sup>, one of the most beautiful spots in the Island. The Consul persuaded us to ride, assuring us that a walk of 12 miles there and 12 back would assuredly be followed by fever. We therefore hired two ponies

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the only two we could procure, and the very worst I ever saw, and a Jackass for which we drew lots. Mr. McCormick<sup>25</sup> and I soon relinquished our beast, and sent them back before leaving the Town, and the Jackass, having performed the feat of unassing Mr. Hallett<sup>30</sup> and running through the Town with our poor purser hanging to his neck, we determined to walk. We passed over similar ground to what we had previously, and about six miles out of the town came to the foot of some hills, where there was a plain covered with *Acacia*<sup>17</sup> trees, which were uniformly bent half way up at right angles to the trunk by the trade wind; they presented remarkable appearance, there were about 200 of them all like one another. The largest I saw was about 4 feet in diameter. They were nearly of a height about 10-15 feet, and the horizontal part as much more or longer. Mr. Darwin mentions this very plain, and most accurately describes the direction of their branches [The verso of this page has ink drawings depicting two individuals of this species (likely *Acacia farnesiana*)].

One tree attracted my attention particularly, its trunk grew horizontally from the side of a steep valley, itself in the direction of the trade wind, and I was puzzled to conceive why the branches had twisted in a corkscrew manner, and were very stunted. A little consideration soon solved the mystery, the strength and vigour of the trunk had enabled it to resist the force of the wind, this is the case with all; as soon however, as a branch was thrown out from the summit, it was immediately bent, the increase of twigs on it then enabled it to resume its original direction by breaking the current, until it overtopped these defending twigs, when it was again bent. A repetition of these causes soon made the corkscrew.

Passing round the base of mountain composed entirely of red volcanic stones, we came upon another extensive plain, which terminated in a small valley that led into the valley of St. Domingo<sup>31</sup> at right angles.

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The descent into the valley was very steep, the rocks of this branch valley became gradually higher, until, we came to the Valley of St. Domingo<sup>31</sup>. The scenery at this end was quite Scotch or Welsh, the valley was very broad, interspersed here and there with trees and huts of niggers; the hill side were clothed with small trees, chiefly Palma Christi<sup>16</sup>, and were grassy for most of the way up, rising about 2500 feet. We now turned off to proceed towards the town of St Domingo<sup>31</sup>, the rocks and mountains grew steeper and closed upon one another. We walked along a narrow pathway among thick foliage of oil bushes and several other small trees. The vegetation was quite different from what I have seen before, though not rank of tropical; I had barely time to gather a few plants before evening set in.

The beautiful Kingfishers were chattering on the trees in numbers, and one little bird sang so like a robin, that we all exclaimed at once we were in England.

The evening was deliciously cool, and weary and jaded as we were, no charm of nature could have come more opportunely or revived our spirits better. None can appreciate much scene and time without having walked 12 miles under blazing sun, over rocks, that almost scorched your feet as you stepped upon them. Our pathway was the dry bed of a stream, full of boulders of trap rock and water pebbles. The Valley here was very narrow, with precipitous mountains on each side, we were evidently in the mountainous part of the Island, a mile further opened Domingo and the S.E. extremity of the valley.

The mountains were broken into most extraordinary peaks and pinnacles, which remained me of the Organ Mountains in Rio de Janeiro, only this were much sharper. At the base of one of these or rather, hanging on its side, were the few huts imbedded in foliage, that formed

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the town of St Domingo<sup>31</sup>, we crossed a stream and passing through maize plantations ascended the opposite hill to reach it.

It was now dark, and going to the chiefly house near the plain, we enquired for the Venda; we were answered in French and asked if we could converse. We were then told we were welcome to anything the owner possessed, and invited in; further no payment was to be offered. This was too good not to be accepted, and we were asked into a rather good cottage, around which were some builders and Carpenters embellishing. The owner a Mr. --- was a Portuguese of Porto Praya, but educated in France; he had lived many years in the Island, but had retired to the Valley to recover from the fever, which has so reduced him, that his friends could not recognised him. After having held several offices, he now enjoyed of Major in the Army, and Paymaster to the Regiment in Porto Praya. He lived with his wife and several little slaves, his property surrounds his house and is cultivated with tropical fruits and plants. For dinner a fine turkey with wheaten bread, rum (the rum is made here of sugar cane and is very sweet, but fiery and not good) and water set before us. For dessert had bananas and fruit, new to me, The Mama (pronounced Ma-maw)<sup>32</sup> it is the size and consistency of a turnip, after peeling off the inty like that of a true swede, you come to an inside like that of a turnip, with a quince flavour, and of the same consistency, in this two to four large nuts are embedded. It is a Brazilian fruit and very rare, I have some of the leaf of the tree, shrub, producing it.

The Valley he told us is very fertile and full of monkeys, wild cattle and Galenas; Hawks we saw in abundance. The following information regarding the Island as I had it from him, I shall insert here.

The Island all around consist of broad flats such as we had crossed to reach the valley; these flats or prairies had round topped hills on them; the central part only is very mountainous, with deep valleys and ravines, in the most beautiful of which we there were. To the northward the country is

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more cultivated and fertile in the valleys, though there is no sea port or other town but Porto Praya; numerous Portuguese families have large states and well cultivated, scattered through the Island, but they are so hid in the valleys, that even the houses, which are very good, are only to be found accidentally or by being told were to look for them.

Of Town only ones worth nothing are Porto Praya, the present capital, St. Domingo<sup>31</sup> once a thriving place, now all the Portuguese houses are demolish and nothing remains but huts, and the Cidade<sup>33</sup> (city) or old capital which some of your party visited; it is well described by Darwin and the Ribiera grande<sup>34</sup>, it contains a church and is rapidly into decay. The climate is very hot and dry, healthy from March to August when the rains set in; they fall very seldom but then in immense quantities, when life is immediately called forth. It rains more in the mountain regions of the interior than in the plains below, at St Domingo<sup>31</sup> it rained three times during the last season (August last). After the rains the fevers set in and last till February; they are said to be deadly to Europeans, though none of our ships ever suffered and it is impossible to expose oneself more than we did.



The plains are most unhealthy; the mountains hardly at all; Porto Praya worst of all; that, I can well believe, from a small marsh that lies outside the town. But why the other parts of the plains can be so unhealthy, I am at a loss to conceive, unless, as Humboldt conjectures, the gaseous exhalation of dry rocks can produce a miasma. The fevers<sup>10</sup> are described to me as arising from exposure to the hot sun, and they commence with diarrhoea. Salts and lemonade are the only medicine used in the country, with the latter the Consul cured himself.

The highest mountain in the Island is the Peak of St. Antonio<sup>1</sup>, it is visible from the town and the anchorage, rising in the form of an acute peak to a great height, said to be 5000 feet. Its top was almost always covered with clouds. St. Domingo<sup>31</sup> contains about 100 inhabitants. This we afterwards found [it] is the negro's slum [text "This we afterwards... the negro's slum" is found on verso of Page 43]. During dinner our hostess arranged three little slaves round the table;

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they were very clean and neatly dressed, quite young and yet black. After dinner they each received an embrace from their mistress, and came to us for the same. Our host said, he treated them as children, and would not part with one for anything. On talking our departure we gave our kind host all our shot and I my powder flask, as, the only recompense he would take. Mr. Hallett<sup>30</sup>, being knocked up, procured a horse to return with, Mr. McCormick<sup>25</sup> and I walked. We returned by beautiful moonlight. I determined to visit the valley again if possible.

Monday Nov. 17<sup>th</sup> --- Mr. Wilmot<sup>9</sup> and Leffroy<sup>35</sup> having agreed to accompany me on a second visit to the valley of St. Domingo<sup>31</sup>, we left the ship early, and knowing the uninteresting nature of the intervening country, we determined to make another essay with horses. We accordingly procured three miserable looking animals about 7 hands high, as rough as bears,

unshod, and having most languishing eyes. The gear was most impartially distributed among them; one having a pad and bridle; another, a saddle and no bridle; the third a horse hair halter and peaked saddle; these appurtenances were so arranged, the knife-backed one had the pad which was worn through; the tamest the full bridle; and the fiercest or rather, th[e] most run home one, the rotten halter. Strikes and blows would hardly make him to move, the only switched their tails at that, and I thought it a remarkable instance of animal instinct that they equally switched thin tails, whether the flank of the animal or the boot of the rider received the blow, I often wished I had his hide to make boots of.

Mr. Wilmot<sup>9</sup> was the first to find out how to make a Porto Praya pony gallop, (if it can ever) it is accomplished by exaggerating motion of the galloping yourself on the saddle, kicking your heels into the animals flanks, and personifying a flying postboy. The vegetation as we descended increased in richness and I remarked several trees that had before scape my notice; hardly any of

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them were in flower or fruit; they have generally compound leaves. One species of Nat. Ord. Annonaceae<sup>36</sup> was not uncommon, though I could find but two specimens in fruit, it grew about 20 ft. The underwood was formed of small Sidas<sup>13</sup>, Malvas<sup>37</sup>, Solanum<sup>38</sup> and the species were not numerous but very pretty, and quite different from those of the prairie land; grapes were numerous and beautiful. Of Cyperaceae, only one species of Cyperus<sup>39</sup>. One specimen of a species of Digitalis?<sup>40</sup> delighted me much, though after diligent search I found but one shrub of it, and only two or three flowers. A beautiful evening flowering [gap here in original diary] was in profusion with Leguminosae<sup>14</sup> and a few Compositae<sup>41</sup>, all herbs.

Here Leffroy<sup>35</sup> dismounting and trusting the tameness of his pony, lost him, he made of into the woods and defied all attempts to catch him [text “Here Leffroy dismounting... to catch him” is found on verso of Page 44]. One nearing our friend’s the Frenchman’s house, I found a fine Asclepiadeous plant<sup>42</sup>, of which, one, of my shipmates had previously brought me specimens from Quail Island; it grew to the height to 10 feet; is little branched; leaves very large ovate; umbels of flowers large; petals with purple streaks; the fruit is however the most remarkable part; only two out of the umbels come to maturity; the capsule is surrounded by an immense infiltrated green integuments, often larger than the closed fists. The stem is very milky, so full indeed, as to render it difficult to dry. None of the stems I saw were above 6-8 inches in diameter, but I was told much larger shrub or tree of it existed some distance off. On a tamarind tree in St. Domingo<sup>31</sup> I found one of the only two fungi that I had seen on the Island; it was a large species of Polyporus?<sup>43</sup> and had doubtless grown there in the rainy season four months ago. On being touched it fell into a cloud not preserved it [text “On a tamarind.. not preserved it” is found on verso of Page 44].

We had arrived just at dinner time and were invited to partake. There were many dishes new to me, commencing with Cassava root soup, which is very delicate and most delicious; it looked like a soup of the whitest bread, soaked in water, but tasted something like vermicelli – or rather ate like it. Beef boiled quite dry with Cassava roots, omeletes, and a variety of excellent small dishes followed; we were helped in moderation of each, and it seemed to be custom to eat of all. Having made a[n] excellent dinner, we started to ascend a peak

immediately behind our friend's house, its appearance was that of a steep cone with a pinnacle upon the top of it. On our way back we saw plenty of Indigo, which is used here as usual, and several tamarind trees. One ascent of the base was through a dense field of maize, about 8 foot or more high. There was no path and beating our way was rather arduous.

About half way up I met with the plants I had found on the hills about Porto Praya, a little higher at the base of the pinnacle the vegetation altered; several Lichens grew on the rock *Cladonia*<sup>44</sup> among others a *Scrophularia*<sup>45</sup>, pretty *Lotus*<sup>46</sup> ? and a Composite low shrub<sup>47</sup>, like an *Inula*. Here I had to relinquish my box and hammer for an arduous climb. Mr. Wilmot gave up the attempt, while Lefroy proceeded, I stuffing my pockets with plants at every step. The rock was volcanic and but for the holes in it some of the cliffs would have been insurmountable. On a small ledge near the top there grew most lovely *Compositae*<sup>48</sup> with bright orange red flowers and long involucres; also a beautiful blue flowered *Campanula*<sup>49</sup> with a corolla 1 ½ inches long. The top was gained after much difficulty, the scene up the valley was magnificent and remained me of the scene in Rasselas, high mountains with pinnacle tops seemed to close in on every side, while the base was of a rich green. The summit is very narrow ridge, and what we had thought a pinnacle turned out to be a wall with so broken a top that our position was isolated from the rest, or any, or any easier mode of descent.

An Umbelliferous<sup>50</sup> plant the first I had seen on the Island grew here, it is small herb with white umbels, Numerous hawks, buzzards and vultures kept hovering round. They wheeled about eyeing us askance as they passed. After enjoying the view and gathering specimens of a tree (*Euphorbiaceae* ?)<sup>51</sup> that grew in the summit, of which there were only two plants, and one specimen in flower.

We began to think of descending, Lefroy<sup>35</sup> took me the way he came up,

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whilst I thinking that no other way could be worse than the old one, took another. I got sadly hampered now and then, having to cling by my hands and feet and lower myself from ledge to ledge, A lot of little niggers below shouting to me, and could juts distinguished them waiving their hands, but could not understand their signs. I was well rewarded by finding, when about half way down, a lovely fern with beautiful soft green foliage growing like our Cistophris [Cystopteris]<sup>52</sup> out of the crevices of the rocks; it grew with lots of the Campanula<sup>49</sup> and Umbellifer<sup>50</sup>, which so put me in mind the old Scottish forms of plants, that I only wanted a companion who had botanised over Ben Lawers<sup>53</sup>, to share my joys with me. A very minute moss, but moss, but out of fruit, grew on the rocks very sparingly. Encumbered as I already was I could not help suffering every pocket of my shooting coat with various treasures I encountered, a hammer would have secure 5-6 species of Lichens<sup>54</sup> besides. Near the base I met with a Euphorbia<sup>55</sup> like Luthraria, no much higher; on it a beautiful caterpillar of the Sphinx Euphorbia was feeding; on my taking it off it ejected on my hand contents of its stomach, a greenish acrid fluid, doubtless a means of protection [text “Near the base... means of protection” is found on verso of Page 46]. I reached the bottom of the valley at last, when the little niggers set up a tumultuous shout, and I peered down the cove, which was her covered with Palma Christi plant<sup>16</sup>, though which and myriads of spiders, I had to break my way and meeting a pathway found Lefroy<sup>35</sup> waiting for me, and the Frenchman, who prophesised we could break our necks, delighted to receive us again.

We remained half an hour to rest ourselves, in which time I emptied my pockets into my travelling portfolio, which I may mention here, it is the only good way of preserving plants in the

Tropics, and were it not for the weight, ought to be looked upon as indispensable addition to the vasculum. The poor withered herbs that I gather on my previous excursions used on my return to be more crumpled still from the fiery heat of the sun beating on the vasculum, and sorry specimens they have made, though invariably put into paper immediately on my return.

We had the curiosity to enquire the price of a labour from our host to-day, and were informed that masons and carpenters were

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in the habit of receiving 3/- to 5/- per day including food, which is of course enough, even mortar makers received 2/- 3 shillings. Stones are abundant, the house was building of trap rock with crystals of Hornblende & in it. Lime stone is not uncommon we were told, even high up the hills containing sea shells; it would be most interesting to know whether this is a part of the same bed as evident as the sea cost, uplifted by the volcanos of the centre of the Island, which had poured out the beds of lava that covered it lower down, or whether it is a more ancient bed upheaved by volcanos of older date.

Having bid a final adieu to our friend of the valley, we commenced our return by a different rout. Much and deservedly as the Portuguese have been stigmatised as most inhospitable, I cannot forbear here calling particular attention to the present case, as showing what a good education may do for one in low circumstances; had he no bred in France a completely civilised country, he might as most of his countrymen would be, have turned us from his door and then not only put us to personal inconvenience, but deprived us of the little information concerning the Island, which he alone of the Europeans we saw, was able to give.

Man always looks back with pleasure to such spots as this, where disinterested kindness has been shown him, when to this is added a new country, and the charms of a scenery half tropical and half what is dearer still to me Scottish, both as to scenery and general features of scanty vegetation, his happiness to whom the works of Nature have charms, is, for the time, complete,

According to our new route homewards and the direction of the little black guide, our path lay up the valley for a mile further, and then struck off to the right by a narrow pathway that ascended

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the side of one of the hills in a zigzag direction, we had now to dismount our horses and our guide left us. We ascended through the hanging brushwood of the hill; the crickets chirruped in astonishing numbers so incessantly and shrilly that it quite dunned us, and rendered it difficult to hear one another talk at a few feet distant. The voices of some were varied and even musical putting me in mind of Anacreon's ode to the grasshopper.

The ascent was most uniformly steep and toilsome; by the time we had reached the summit which, we agreed to be about 2500 feet above the valley, it was past sunset. The moon rose, and being in the full, shed the most beautiful light over one of the most interesting valleys I ever beheld, it gilded the peaks all around and I could barely distinguish the houses of St. Domingo<sup>31</sup> far beneath us and the peak we had ascended about 500 feet below our present level. In the darkness, I picked up one or two of the peak plants, but he had no time to delay. We took a last look to the valley and commence our return. The small path we had followed soon divided into a mere goat track, and with nothing but the moon and the compass we fought our way through groves of oil trees; every now and then our way was completely obstructed by a cliff, deep

valley, or the trees growing so close that we could not lead our horses under it. The latter indeed were sad pests, they were more tired than ourselves and it caused us much trouble to urge them on. We took our turns of leading the way, one went in front leading a beast, the second led another and kept beating the first, whilst that brought up the rear urged on the second pony, heartily glad we then were that Lefroy's<sup>35</sup> beast had run away, and we only wished that the rest had followed his example. After wandering about for an hour or more, during which time we ingeniously decoyed into a bull pound, we left Lefroy<sup>35</sup> with the horses, and Wilmot<sup>9</sup>

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and I struck off into different directions to find the direct way. After ascending the brow of a hill I descried a hill, round the base of which we had wound in going in the morning, and the plain full of Acacia trees, we soon came upon a path which led into the direct road. This we again deserted and returned by the head of the valley with the Baobab<sup>15</sup> tree.

On arriving at Porto Praya we repaired to the Consul to inquire what arrangements Lefroy<sup>35</sup> should be prepared to make, or rather receive, with regard to the lost pony. We were surprised to hear that a dollar or two would make up for all. As the animal was sure to return as soon as it had satiated its ravenous appetite on the greener grass of St. Domingo<sup>31</sup>.

Tuesday Nov. 18 th --- Had we not expected to have sailed this afternoon, I should certainly have made arrangements to have visited the peak of St Antonio, so much did I expect from the subalpine, or rather, temperate nature of the vegetation upon the heights above St Domingo<sup>31</sup>. As it was I had time to visit Quail Island<sup>6</sup>, and to examine the bed of shells which transverses it. The plants on it were the same as those of the neighbouring coast, with the exception of the large leaved Asclepiadeous<sup>42</sup> plant that grows there and in the interior. The Island is flat topped with



precipitous sides all round. The summit consists of black rocks, either split into tubular masses or presenting the appearance of a liquid map which had dried gradually, forming circles round the stone etc. that opposed its progress. The whole coast was covered with strewn wreck of the Rover, ribs, trunks and pieces of copper etc., lying about everywhere; the top was covered with withered grass<sup>5</sup>, besides which, about 20 species of plants grew in the Island. There were rocks of the coast, considerably above the water mark, the shells of a beautiful

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crab which at a certain season leaves the sea, and crawling up the cliffs, leaves its shell, crawling out of so small an aperture, that it cannot be discovered but by knowing where to look for it, and so completely does it unshell itself, that the cornea of the eye is left behind. The shell is so brittle that it can hardly be touched without breaking. The crab itself I saw close to the water, on the rocks, but he is much too cunning to be caught. There were very few recent shells on the coast, nor did I see either the *Aplysia* or *Octopus* that Mr. Darwin describes.

The only landing place or beach on Quail Island<sup>6</sup> is to the west-ward. This beach is formed of a volcanic stuff containing boulders, and water-worn pebbles of trap rock, and quantities of sea shells, chiefly fragments, which it has taken up in its substance. This present land is covered by the calcareous rock which presents the appearance of an indurated shell sand, with water worn pebbles, etc<sup>56</sup>. The lower part is most homogenous, the shells & particles of the upper portion being nearest, not yet exposed to so much action of the old sea and tide. This bed all along the coast is covered with the last lava stream that has covered the island. – passing to the southward this sand expresses the appearance of sandstone being more concrete and much hardened where it is [in] contact with the superior trap lava stream. It contains then beautiful fossil shells and is

so hard that it is now using on boats for polishing the decks. To the SW this has disappeared and there is interspersed between the trap stuff of the beach and the second lava current a very thick bed of disintegrated volcanic rocks, full of pebbles. This at first I supposed to be result of the disintegration of the neighbouring rocks taking the place of the shell beach but it contains no shells itself. It may therefore be either a formation of itself or a snap of matter carried forward by the under

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lava stream and which from being above the surface of the sea or tide during the formation of the neighbouring ancient sea beach was deprived of sea shells and other fossil remains. It appears then the most likely theory is that it was upraised by the lowest bed of trap stuff, for I find it not only hardened by it but also by the recent lava current above. Further to the S[outh] the overlaying lava current expresses the form of basaltic columns raising from a stratified base that overlies the disintegrated trap at the junction. The latter hardened and contracted the recent lava running into the fractures left. To the northeast the columns become larger and present more transverse fractures. The stratified beds are here inclined at an angle of 25 degrees towards the southwest. A little further on the shale then appears interspersed between the disintegrated rocks. The lava bed above it is at its first appearance not above an inch or two thick. It then deepens to a foot & for that distance it is not only extremely hard itself but the disinteg[erated] trap is hardened through it, its first [illeg.] full of calcareous matter. The calcareous had some thickness is at its centre lower part soft but above hardened by the overlying lava current, which first presents immense columns 2 or 3 feet in diameter. The Eastward of the island I did not examine, but on

passing it in a boat I saw the calcareous rock lying on the disintegrated trap of & covered by the trap columns above.

Wed. Nov. This morning we weighed anchor; and even lost sight of the Cape Verde. Isolated as they are from and, and partaking as they appeared to me to do, of the vegetation of the S of Europe, The African desert, and tropical Africa; their examination thought fatiguing, afforded me the highest gratification as a Botanist.

## NOTES

<sup>1</sup>Pico da Antónia (1394 m) is the tallest mountain of the island of Santiago.

<sup>2</sup>Praia is a coastal town and capital of the *República de Cabo Verde*.

<sup>3</sup>Two vessels sailed to the Antarctic during the visit of Hooker to the Antarctic: HMS *Erebus* and HMS *Terror*. Hooker was part of the HMS *Erebus* crew.

<sup>4</sup>Charles Darwin visited the island of Santiago between January 16 and February 8, 1832 on board HMS *Beagle*.

<sup>5</sup>“Withered grass” could refer to the following grasses that were collected by Hooker (Appendix 2): *Aristida adscensionis*, *Brachiaria ramosa*, *Setaria verticillata* or *Tricholaena teneriffae*.

<sup>6</sup>“Quail Island” is a small islet located near the coastal town of Praia which is known in Portuguese as Ilhéu de Santa Maria.

<sup>7</sup>The surgeon HMS *Erebus* was Robert McCormick.

<sup>8</sup>The purser of HMS *Erebus* was Thomas R. Hallett.

<sup>9</sup>“Mr. Wiltmot” is not listed among the officers of the HMS *Erebus* or HMS *Terror* (Ross, 1847: xix). We assume this name refers to a regular expedition crew member.

<sup>10</sup>“coast fever” could refer to malaria, which is locally known as *doença da terra*.

<sup>11</sup>The palm *Phoenix atlantica* A. Chev. is endemic to the Cabo Verde (Fig. 8C) and it also found on Santiago (Henderson *et al.*, 2003, 2006). It is likely that Hooker is referring to this species.

<sup>12</sup>This “large red flowered Convolvulus” could refer to the Pantropical *Ipomoea asarifolia* (Desr.) Roem. & Schult. (Convolvulaceae), a species with large red-purple flowers that is common in arid zones. Hooker collected *I. cairica*, *I. coptica*, *I. triloba*, and *I. turbinata*; however, but none of these four species have red flowers.

<sup>13</sup>Hooker made collections of four different species of *Sida* (*S. acuta*, *S. cordifolia*, *S. rhombifolia*, and *S. urens*, Malvaceae, Appendix 2); therefore, the “small Sidas” mentioned in the travelogue could refer to any of them. The island of Santiago has six species of this genus (Arechavaleta *et al.*, 2005: 48).

<sup>14</sup>Hooker made collections for 12 different species of legumes (Papilionoidea), that are found near Praia (Appendix 2). Any of these taxa could be assigned to the “Leguminous plants” reported in the travelogue. The island of Santiago has 46 species in this family, excluding Caesalpinioideae and Mimosoideae (Arechavaleta *et al.*, 2005: 45–46).

<sup>15</sup>Both Darwin (Keynes, 1988: 26, 28) and Hooker visited a famous and large Baobab tree (*Adansonia digitata* L., Malvaceae) that was found near Praia. It is likely that this particular individual is a large one located at Ribeira da Trindade shown in Fig. 5A.

<sup>16</sup>*Ricinus communis* L. (Euphorbiaceae) is referred in Hooker’s diary as “Palma Christi” and “castor oil bushes.” This a non-native invasive species endemic in northeastern Africa and the Middle East.

<sup>17</sup>Both Darwin (1839: 3) and Hooker made reference to individuals of *Acacia* (likely *Faidherbia albida* (Delile) A.Chev.) that have a stunted habit on mountain summits and areas exposed to the northeastern trade winds.

<sup>18</sup>*Bidens pilosa*, a non-native invasive species from the Neotropics that is frequently found in Santiago. The species was collected by Hooker (Appendix 2).

<sup>19</sup>*Acacia* s.l. has five species in Santiago (Arechavaleta *et al.*, 2005: 46), only two of them (*A. farnesiana* and *A. nilotica*) were collected by Hooker.

<sup>20</sup>The family Convolvulaceae has 16 species in Santiago, thirteen of which belong to *Ipomoea*. The genus *Convolvulus* (as indicated by Hooker) does not occur in this island (Arechavaleta *et al.*, 2005: 51); however, these species of *Ipomoea* were formerly classified in *Convolvulus*. See note 12 with details of species of *Ipomoea* collected by Hooker in Santiago.

<sup>21</sup>This is the highest mountain (1345 m) of the British Isles, located in Scotland.

<sup>22</sup>This “Asclepiadeous plants” refers to *Cynanchum daltonii*, a Cabo Verde endemic that was collected by Hooker.

<sup>23</sup>Sir James Clark Ross was the chief-commander of the expedition.

<sup>24</sup>We are not aware of any ethnobotanical study pertinent to palms from Santiago. However, palm leaves are widely used on this island mostly as a source for handicraft, fences, and thatches.

<sup>25</sup>Robert McCormick was the surgeon of HMS *Erebus*.

<sup>26</sup>These “Asclepiadeous plants” refer to *Sarcostemma daltonii* (see note 22), as indicated by Hooker this is a species with a widespread distribution on the island.

<sup>27</sup>Robert Molley was one of the three mates of HMS *Terror*.

<sup>28</sup>Containers are made with the fruits of *Lagenaria siceraria* (local name: cabaça).

<sup>29</sup>It is likely that this “small Linaria” refers to the *Kickxia elegans*, a Cape Verde endemic that was collected by Hooker (Appendix 2).

<sup>30</sup>Thomas R. Hallett was the purser of HMS *Erebus*.

<sup>31</sup>“valley of St. Domingo” refers to São Domingos valley, a fertile area located ca. 12 km from Praia.

<sup>32</sup>The “Mama (pronounced Ma-Maw)” fruit refers to the Neotropical fruit tree *Mammea americana* L.

<sup>33</sup>“Cidade” refers to Cidade Velha. This is the oldest settlement of the archipelago and capital of the islands until 1770. This town is also known under the name Ribeira Grande.

<sup>34</sup>See note 33

<sup>35</sup>“Leffroy” is not listed among the officers of the HMS *Erebus* or HMS *Terror* (Ross, 1847: xix). We assume this name refers to a regular expedition crew member.

<sup>36</sup>There is no any Annonaceae species native or naturalized in the islands. However, a few species of *Annona* are cultivated as fruit trees. During his visit to Santiago Hooker collected *A. squamosa* and *A. senegalensis*.

<sup>37</sup>There are 20 Malvaceae species in Santiago (Arechavaleta *et al.*, 2005: 48), among them only two belong to *Malva* [i.e., *M. parviflora* L. and *M. spicata* (as *Malvastrum americanum* in Arechavaleta *et al.*, 2005: 48)]. *Malva spicata* was collected by Hooker during his visit to the island.

<sup>38</sup>The family Solanaceae has 17 species in Santiago (Arechavaleta *et al.*, 2005: 52), four of which belong to *Solanum*. Hooker only collected the widespread weed *S. nigrum* and the endemic *S. rigidum* in Santiago.

<sup>39</sup>The island of Santiago has eight species of *Cyperus* (Arechavaleta *et al.*, 2005: 53–54). Hooker only collected *C. alopecuroides* in this island.

<sup>40</sup>The genus *Digitalis* (Plantaginaceae) does not occur in Cabo Verde. We are not certain to which taxon Hooker refers to in his travelogue.

<sup>41</sup>The family Asteraceae has at least 40 species in Santiago (Arechavaleta *et al.*, 2005: 40–42).

Hooker made collections for ten of these species (two of them are woody: the endemics

*Asteriscus daltonii* ssp. *vogelii* and *Sonchus daltonii*). We are not certain to which “Compositae”

Hooker refer to in his diary.

<sup>42</sup>The “Asclepiadeous plant” that Hooker reported is *Calotropis procera*, a non-native Cabo

Verde species that has its original distribution area in the Paleotropics.

<sup>43</sup>We are not certain to which basidiomycete species Hookers referred to as the genus *Polyporus* has not been reported for Cabo Verde.

<sup>44</sup>Four species of the lichen *Cladonium* occur in Santiago (Arechavaleta *et al.*, 2005: 40–42) but we are not certain which one was reported by Hooker.

<sup>45</sup>There is only one species of *Scrophularia* (Scrophulariaceae) in Santiago (the non-endemic native *S. arguta*, an Old World species with a predominant distribution in the Middle East); however, this species was not collected by Hooker during his visit to Santiago.

<sup>46</sup>Hooker’s reference to “pretty Lotus” could apply to the Cabo Verde endemic *L. jacobaeus*. Indeed, Webb’s (1849) indicated that Hooker collected this species under collection number 153. However, the specimen found in K for *J.D. Hooker 153* is not for *L. jacobaeus*, and has been tentatively assigned to *L. purpureus*. The sheet that has this specimen has also specimens of *L. jacobaeus* that were collected by Vogel during the Niger Expedition. We cannot rule out that when all these specimens were mounted labels were mixed up and that Hooker’s collection is for one of the specimens that are currently assigned to Vogel.

<sup>47</sup>The “Composite low shrub, like an Inula” reported by Hooker might refer to the Cabo Verde endemic *Asteriscus daltonii* ssp. *vogelii*. This is a sunflower that belongs to the tribe Inuleae and that was collected by Hooker in Santiago.

<sup>48</sup>Hooker's report for a "Composite with bright orange red flowers and long involucre" refers to the Neotropical *Zinnia pauciflora* (Appendix 2).

<sup>49</sup>"The beautiful blue flowered Campanula with a corolla 1 ½ inches long with blue flowers" refers to the Cabo Verde endemic *Campanula jacobaea*, a species collected by Hooker during his visit to Santiago.

<sup>50</sup>We believe that the "small herb with white umbel" Apiaceae reported by Hooker refers to the Cabo Verde endemic *Tornabenea annua* Bég. This species was collected by Hooker (Appendix 2).

<sup>51</sup>It is likely that this "tree (Euphorbiaceae ?) that grew in the summit" refers to the Cabo Verde endemic *Euphorbia tuckeyana* Steud.

<sup>52</sup>It is likely that this "*Cystopteris*" refers to *Hypodematum crenatum* (Forssk.) Kuhn, a fern that was collected by Hooker (Appendix 2).

<sup>53</sup>"Ben Lawers" is the highest mountain in the southern part of the Scottish Highlands.

<sup>54</sup>Santiago has 153 species of lichens (Mies, 1996), but it is uncertain which are the "5–6 species" recorded by Hooker.

<sup>55</sup>We are not certain to which species of *Euphorbia* the text refers. Reports of caterpillars feeding on leaves of the widespread *Euphorbia hirta* L. and the endemic *E. tuckeyana* (Fig. 8D) on Cabo Verde have been published by Tennent & Russell (2015).

<sup>56</sup>These limestone formations were also described by Darwin. They are arranged among basalt flows and have been interpreted as the result of geological uplifts that the island of Santiago has experienced. The interbedded limestone layer and its associated submarine lava layers have a marine origin. These layers were exposed above sea level once they were uplifted and suffered coastal erosion (Fig. 8E). Prior to the built up of submarine lava flows, the limestone layer



accumulated sand near offshore, and that is where most of the recorded fossils (e.g., corals, mollusks (Fig. 8F), rhodoliths) originally lived (Johnson & Baarli, 2015; M. Johnson, pers. comm.).

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## APPENDIX 1 – PART 2

TABLE LISTING THE HERBARIUM SPECIMENS COLLECTED BY SIR JOSEPH DALTON HOOKER IN CABO VERDE.

Taxon*	Reference to Hooker's collection in Webb (1849)	Specimen barcode no.**	Notes / Biogeography <sup>†</sup>
<i>Abutilon pannosum</i> (G.Forst.) Schltdl. [ <i>A. glaucum</i> (Cav.) Sweet], Malvaceae	J. Dalton Hooker, n. 196	K001134131, K001134109	- / Non-endemic native
<i>Acacia farnesiana</i> (L.) Willd., Fabaceae	J.D. Hooker, November, 1839	No located in K	- / Introduced
<i>A. nilotica</i> (L.) Delile [ <i>A. arabica</i> (Lam.) Willd.]	J.D. Hooker, n. 145	K001088761	- / Introduced
<i>Achyranthes aspera</i> L., Amaranthaceae	J.D. Hooker, n. 169	No located in K	- / Introduced
<i>A. aspera</i> [ <i>A. argentea</i> Lam.]	J.D. Hooker, n. 170	K001134162	- / Introduced
<i>Adansonia digitata</i> L., Malvaceae	J. Dalton Hooker, n. 141	No located in K	- / Introduced
<i>Aerva persica</i> (Burm.f.) Merr. [ <i>A. javanica</i> (Burm.f.) Schult.],	J. Dalton Hooker, n. 107	K001035637	- / Non-endemic native

Amaranthaceae			
<i>Amaranthus viridis</i> L.	J.D. Hooker, n. 109	K001134161	Specimen J.D. Hooker 20[26?] /
[ <i>A. gracilis</i> Desf.], Amaranthaceae			Introduced
<i>Annona squamosa</i> L., Annonaceae	J. Dalton Hooker, n. 131	K001134367	Listed as “Annona” in letter that
			J.D. Hooker wrote to his
			father from Santiago, under
			collection number 131 /
			Introduced
<i>Argemone mexicana</i> L., Papaveraceae	J. Dalton Hooker, n. 135	No located in K	Listed as “Papaver” in letter that
			J.D. Hooker wrote to his
			father from Santiago, under
			collection number 135 /
			Introduced
<i>Aristida adscensionis</i> L., Poaceae	J.D. Hooker, n. 91	K001134140	- / Non-endemic native
<i>Asparagus squarrosus</i> J.A.Schmidt	J. Dalton Hooker, n. 102	K001134473	- / Endemic
[ <i>A. scoparius</i> Lowe], Asparagaceae	[as “10. 2”]		
<i>Astericus daltonii</i> (Webb) Walp. subsp.	J.D. Hooker, n. 204	K001134004	Specimen J.D. Hooker s.n.;

<i>vogelii</i> (Webb) Greuter [ <i>Odontospermum daltonii</i> Webb], Asteraceae			Listed as “Inula” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 204 / Endemic (Fig. 7B)
<i>Bidens pilosa</i> L., Asteraceae	J.D. Hooker, n. 201	K001041555	Listed as “Bidens” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 201 / Introduced
<i>Blainvillea gayana</i> Cass., Asteraceae	J.D. Hooker, n. 182	K001041554	- / Non-endemic native
<i>Boerhavia coccinea</i> Mill., Nyctaginaceae	Unreported	K001134159	Specimen J.D. Hooker 175 / Non-endemic native
<i>Brassica nigra</i> (L.) W.D.J.Koch, [ <i>Sinapis nigra</i> L.], Brassicaceae	J. Dalton Hooker, n. 139	K001134156	- / Introduced
<i>Calotropis procera</i> (Aiton) W.T.Aiton, Apocynaceae	J.D. Hooker, n. 207	No located in K	Listed as “Asclepias” in letter that J.D. Hooker wrote to his

			father from Santiago, under collection number 207 / Non-endemic native
<i>Campanula jacobaea</i> Webb, Campanulaceae	J.D. Hooker	K001134407	Specimen J.D. Hooker 125; listed as “blue flowered Campanula” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 125 / Endemic (Fig. 6B)
<i>Campylanthus glaber</i> Benth., [ <i>C. benthamii</i> Webb], Plantaginaceae	J. Dalton Hooker, n. 128	K001134662	Listed as “Scrophularia” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 128 / Endemic
<i>C. glaber</i>	Unreported	K001134660	Specimen J.D. Hooker 130 / Endemic

<i>Capsicum baccatum</i> L. [ <i>C. microcarpum</i> Cav.], Solanaceae	J.D. Hooker, n. 116	No located in K	Listed as “Solanum” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 116 / Introduced
<i>Cardiospermum halicacabum</i> L., Sapindaceae	J. Dalton Hooker, n. 160	K001134492	Specimen J.D. Hooker sn / Introduced
<i>Cassia obtusifolia</i> L., Fabaceae	J.D. Hooker, n. 146	No located in K	- / Introduced
<i>C. occidentalis</i> L.	J.D. Hooker, n. 150	No located in K	- / Introduced
<i>Caylusea hexagyna</i> (Forssk.) M.L.Green [ <i>C. canescens</i> A.St.-Hil.], Resedaceae	J. Dalton Hooker, n. 165	K001134484	- / Non-endemic native
<i>Celosia trigyna</i> L. [ <i>Lestibudesia trigyna</i> (L.) R.Br.], Amaranthaceae	J.D. Hooker, n. 108	No located in K	Listed as “Gomphrena” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 108 [103?] / Introduced
<i>Chenopodium ambrosioides</i> L.	J. Dalton Hooker, n. 111	No located in K	- / Introduced

[ <i>Ambrina ambrosioides</i> (L.) Spach],			
Amaranthaceae			
<i>C. murale</i> L.	J. Dalton Hooker, n. 110	No located in K	- / Introduced
<i>Citrullus colocynthis</i> (L.) Schrad.,	J. D. Hooker, n. 133	K001134352	Listed as “Cucurbita” in letter
Cucurbitaceae			that J.D. Hooker wrote to his
			father from Santiago, under
			collection number 133 /
			Non-endemic native
<i>Cleome gynandra</i> L. [ <i>Gynandropsis</i>	Hooker fil. n. 196	No located in K	- / Non-endemic native
<i>triphylla</i> DC.], Cleomaceae			
<i>Commelina benghalensis</i> L.	J. Dalton Hooker, n. 101	No located in K	- / Introduced
[ <i>C. canescens</i> Vahl], Commelinaceae			
<i>Corchorus depressus</i> (L.) Stocks	J. Dalton Hooker, n. 166	K001134676	- / Non-endemic native
[ <i>C. antichorus</i> Raeusch.], Malvaceae			
<i>C. olitorius</i> L.	J. Dalton Hooker, n. 156	No located in K	- / Introduced
<i>C. trilocularis</i> L.	J. Dalton Hooker, n. 168	K001134686	Listed as an unknown taxon in
			letter that J.D. Hooker wrote

			to his father from Santiago, under collection number 168 / Introduced
<i>Crotalaria senegalensis</i> (Pers.) DC., Fabaceae	J.D. Hooker, n. 146 et 147	No located in K	- / Non-endemic native
<i>Cyanthillium cinereum</i> (L.) H.Rob. [ <i>Vernonia cinerea</i> (L.) Less.], Asteraceae	J. Dalton Hooker, n. 200	K001035623	Listed as “Compositae” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 200 / Introduced
<i>Cynanchum daltonii</i> (Decne.) Liede & Meve [ <i>Sarcostemma daltonii</i> Decne.], Apocynaceae	J.D. Hooker, Nov. 1839	K001134233, K001134234	Specimen J.D. Hooker 132; listed as “a prostate Asclepiadeous plant” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 132 / Endemic



<i>Cyperus alopecuroides</i> L., Cyperaceae	J. Dalton Hooker, n. 100	K001134086	- / Introduced
<i>Datura stramonium</i> L., Solanaceae	J. Dalton Hooker, n. 118	K001134486	Listed as “Datura” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 118 / Introduced
<i>Desmodium tortuosum</i> (Sw.) DC., Fabaceae	J. Dalton Hooker, n. 148 et 149	No located in K	Listed as “Desmodium” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 148 / Introduced
<i>Dicliptera verticillata</i> (Forssk.) C.Ch., [ <i>D. verticillaris</i> Juss.], Acanthaceae	J. D. Hooker, n. 122	K001134263	- / Introduced
<i>Digitaria nuda</i> Schumach., Poaceae	Unreported	K001134465	Specimen J.D. Hooker 86 / Introduced
<i>D. nuda</i> [ <i>D. setigera</i> Roth]	J.D. Hooker, n. 87	K001134464	- / Introduced

<i>Echinochloa colona</i> (L.) Link [ <i>Panicum daltonii</i> Webb], Poaceae	J. Dalton Hooker, n. 83	K000282399	- / Non-endemic native
<i>Eragrostis ciliaris</i> (L.) R.Br. [ <i>E. pulchella</i> Parl.], Poaceae	J.D. Hooker, n. 81	K000366492	- / Introduced
<i>Euphorbia forskaolii</i> Gay, Euphorbiaceae	J. Dalton Hooker, n. 105	K001134043	- / Non-endemic native
<i>E. tuckeyana</i> Steud. ex Webb	J. Dalton Hooker, n. 115	K001080467	- / Endemic (Fig. 6A)
<i>E. tuckeyana</i>	Unreported	K001080465	Specimen J.D. Hooker sn / Endemic (Fig. 6A)
<i>Forsskaolea procridifolia</i> Webb [ <i>F. candida</i> C.Sm. and <i>F. viridis</i> Webb], Urticaceae	J.D. Hooker, n. 113	K000242992, K000242993	Listed as “Urticae” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 113 / Endemic
<i>Grewia villosa</i> Willd. [ <i>G. echinulata</i> Delile], Malvaceae	J. Dalton Hooker, n. 175	K001134258, K001134259	Specimen J.D. Hooker 173 / Non-endemic native
<i>Heliotropium crispum</i> Desf.	J.D. Hooker, n. 124	K001134339	Listed as “Heliotropium” in

[ <i>H. undulatum</i> Vahl. var. <i>ramossum</i> Lehm.], Boraginaceae			in letter that J.D. Hooker wrote to his father from Santiago, under collection number 124 / Non-endemic native
<i>Heteropogon contortus</i> (L.) Roem. & Schult., Poaceae	J.D. Hooker, n. 89	K001134468	Listed as “oat” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 89 / Non-endemic native
<i>H. contortus</i> [ <i>Heteropogon</i> sp.]	J.D. Hooker, n. 90	K001134467	- / Non-endemic native
<i>Hypodematium crenatum</i> (Forssk.) Kuhn & Decken [ <i>Cystopteris odorata</i> Desv.], Dryopteridaceae	J.D. Hooker	K001134440, K001134433	J.D. Hooker 79 / Non-endemic native
<i>Indigastrum parviflorum</i> (Wight & Arn.) Schrire [ <i>Indigofera linearis</i> DC.], Fabaceae	J.D. Hooker, n. 151	No located in K	- / Non-endemic native

<i>Indigofera colutea</i> (Burm.f.) Merr. [ <i>I. viscosa</i> Lam.], Fabaceae	J. Dalton Hooker, Nov. 1839	No located in K	- / Non-endemic native
<i>Ipomoea cairica</i> (L.) Sweet, Convolvulaceae	J.D. Hooker	K001134250	Specimen J.D. Hooker 136 / Introduced
<i>I. coptica</i> (L.) Roem. & Schult.	J.D. Hooker, n. 161	No located in K	- / Non-endemic native
<i>I. eriocarpa</i> R.Br.	J.D. Hooker, n. 137	K000097030	Two different species ( <i>I.</i> <i>eriocarpa</i> and <i>I. triloba</i> ) were collected under J.D. Hooker 137 / Introduced
<i>I. cf. eriocarpa</i>	Unreported	K001134238	Specimen is for J.D. Hooker sn / Introduced
<i>I. triloba</i> L. [ <i>I. leucantha</i> Jacq.]	J.D. Hooker, n. 137	K000097030	Two different species ( <i>I.</i> <i>eriocarpa</i> and <i>I. triloba</i> ) were collected under J.D. Hooker 137 / Introduced
<i>I. turbinata</i> Lag.	Unreported	K001134238	Specimen J.D. Hooker sn / Introduced

<i>Kickxia elegans</i> (G.Forst.) D.A.Sutton [ <i>Linaria brunneri</i> Benth.], Plantaginaceae	J. Dalton Hooker, n. 126	K001134221	- / Endemic
<i>Lablab purpureus</i> (L.) Sweet [ <i>L. vulgaris</i> Savi], Leguminosae	J.D. Hooker	K001041048	Specimen J.D.Hooker s.n. / Introduced
<i>Launaea intybacea</i> (Jacq.) P.Beauv. [ <i>Lactuca nudicaulis</i> Murray], Asteraceae	J.D. Hooker, n. 202	K001134005	- / Non-endemic native
<i>Lotus</i> cf. <i>purpureus</i> Webb [ <i>L. jacobaeus</i> L.], Leguminosae	J.D. Hooker, n. 153	K001134007	Listed as “Lotus” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 153 / Endemic
<i>Macrotyloma daltonii</i> (Webb) Verdc. [ <i>Dolichos daltonii</i> Webb], Leguminosae	J. Dalton Hooker, Nov. 1839	K000263629	Specimen J.D. Hooker 144 / Non-endemic native
<i>Malvastrum americanum</i> (L.) Torrey [ <i>Malva spicata</i> L.], Malvaceae	J.D. Hooker, n. 185 et 187	No located in K	- / Introduced

<i>Melhania ovata</i> (Cav.) Spreng. var. <i>oblongata</i> [ <i>M. lepriouri</i> Webb], Malvaceae	J. Dalton Hooker, n. 195	K001134630	- / Non-endemic native
<i>Melinis repens</i> (Willd.) Zizka [ <i>Monachyron villosum</i> Parl. in Webb], Poaceae	J.D. Hooker	No located in K	- / Introduced
<i>Merremia aegyptia</i> (L.) Urb. [ <i>Batatas pentaphylla</i> Choisy], Convolvulaceae	J.D. Hooker, n. 138	No located in K	- / Non-endemic native
<i>Mollugo nudicaulis</i> Lam. [ <i>M. bellidifolia</i> Ser.], Molluginaceae	J.D. Hooker, n. 163	K001134113	- / Introduced
<i>Momordica charantia</i> L., Cucurbitaceae	J.D. Hooker, n. 162	K001134350	- / Introduced
<i>Ocimum basilicum</i> L., Lamiaceae	J.D. Hooker, n. 121	K001134371	- / Introduced
<i>Oldenlandia corymbosa</i> L. [ <i>Hedyotis</i> ( <i>Oldenlandia</i> ) <i>corymbosa</i> ], Rubiaceae	J. Dalton Hooker, n. 172	K001134154, K001134155	Listed as “Lobelia” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 172 /

			Introduced
<i>Oldenlandia</i> cf. <i>herbacea</i> L. [ <i>Hedyotis</i> ( <i>Oldenlandia</i> ) <i>burmanniana</i> ],	J. Dalton Hooker	No located in K	- / Non-endemic native
<i>Paronychia illecebroides</i> (Webb) Webb, Caryophyllaceae	J. Dalton Hooker, n. 112	No located in K	Listed as “Paronychia” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 112 / Non-endemic native
<i>Paspalum scrobiculatum</i> L., Poaceae	J.D. Hooker	K001134480	Specimen J.D. Hooker 80 / Introduced
<i>Pennisetum polystachyon</i> (L.) Schult. [ <i>P. myurus</i> Parl.], Poaceae	J. Dalton Hooker, n. 92	K000281298	- / Non-endemic native
<i>Peristrophe bicalyculata</i> (Retz.) Nees, Acanthaceae	J.D. Hooker, n. 171	K001134308	- / Introduced
<i>Persicaria decipiens</i> (R.Br.) K.L.Wilson [ <i>P. serrulata</i> (Lag.) Webb & Moq.], Polygonaceae	J. Dalton Hooker, n. 104	K001134481	- / Non-endemic native

<i>Phyllanthus maderaspatensis</i> L. [ <i>P. thonningii</i> Schumach. & Thonn], Phyllantaceae	J. Dalton Hooker, n. 103 et 107	No located in K	Listed as “Croton” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 103 [108?] / Non-endemic native
<i>P. rotundifolius</i> Willd. [ <i>P. scabrellus</i> Webb]	J. Dalton Hooker, n. 105	No located in K	- / Non-endemic native
<i>Plumbago zeylanica</i> L. [ <i>P. occidentalis</i> Sweet], Plumbaginaceae	J.D. Hooker, n. 181	K001134411, K001134413	- / Introduced
<i>Polygala erioptera</i> DC., Polygalaceae	J.D. Hooker, n. 134	K001134183, K001134184	- / Non-endemic native
<i>Portulaca oleracea</i> L., Portulacaceae	J.D. Hooker, n. 109	No located in K	- / Introduced
<i>Rhynchosia memnonia</i> (Delarbre) DC., Leguminosae	J.D. Hooker, November, 1839	No located in K	- / Non-endemic native
<i>Ricinus communis</i> L., Euphorbiaceae	J. Dalton Hooker, n. 74	No located in K	- / Introduced
<i>Salvia aegyptiaca</i> L., Lamiaceae	J.D. Hooker, [...] n. 123	No located in K	- / Non-endemic native
<i>Sclerocarpus africanus</i> Murray,	J.D. Hooker, n. 183	K001041556	- / Introduced



## Asteraceae

<i>Setaria barbata</i> (Lam.) Kunth [ <i>Panicum rhachitrichum</i> Hochst.], Poaceae	J.D. Hooker, n. 83	K001134331, K001134332	K001134331 is for J.D. Hooker 83[85?]; K001134332 is for J.D. Hooker 85 / Non-endemic native
<i>S. verticillata</i> (L.) P.Beauv.	J. Dalton Hooker, n. 97	K001134322	- / Introduced
<i>Sida acuta</i> Burm.f. [ <i>S. stipulata</i> Cav.], Malvaceae	J.D. Hooker, n. 190	K001134093	- / Non-endemic native
<i>S. acuta</i>	Unreported	K001134092	Specimen J.D. Hooker 193 / Non-endemic native
<i>S. alba</i> L. [ <i>S. spinosa</i> L.]	J.D. Hooker, n. 189. et β. n. 194	No located in K	- / Non-endemic native
<i>S. cordifolia</i> L.	J. Dalton Hooker, n. 184, 197 et 198	K001134087, K001134088, K001134089, K001134090, K001134091	K001134087 and K001134090 are for J.D. Hooker 184; K001134088 and K001134089 are for J.D. Hooker 197; K001134091 is for J.D. Hooker

			198 / Non-endemic native
<i>S. rhombifolia</i> L.	J.D. Hooker, n. 186	K001134098	- / Introduced
<i>S. urens</i> L.	J. Dalton Hooker, n. 188	K001134103, K001134104, K001134128	- / Non-endemic native
<i>Sideroxylon marginatum</i> (Webb) Cout., [ <i>Sapotea marginata</i> Decne. ex Webb], Sapotaceae	J.D. Hooker, n. 114	K000435375	- / Endemic (Fig. 7A)
<i>Solanum nigrum</i> L.	J. Dalton Hooker, n. 130	No located in K	- / Introduced
<i>S. rigidum</i> Lam., [ <i>S. fuscatum</i> Jacq.], Solanaceae	J. Dalton Hooker, n. 117	No located in K	Listed as “ <i>Solanum</i> ” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 117 / Endemic
<i>Sonchus daltonii</i> Webb, Asteraceae	J.D. Hooker, n. 199	No located in K	- / Endemic
<i>S. oleraceus</i> L.	J.D. Hooker, n. 203	K001134171	- / Introduced
<i>Spermacoce verticillata</i> L. [ <i>Borreria kohautiana</i> Cham. & Schltdl.],	J. Dalton Hooker, n. 174	K001134641	- / Introduced

Rubiaceae			
<i>Tagetes patula</i> L., Asteraceae	J.D. Hooker, n. 205	No located in K	- / Introduced
<i>Tamarix senegalensis</i> DC., Tamaricaceae	Unreported	K001134532	Specimen J.D. Hooker sn / Non-endemic native
<i>Tephrosia bracteolata</i> Guill. & Perr., Leguminosae	J. Dalton Hooker, Nov. 1839	K001041046, K001041047	Specimen J.D. Hooker 150 / Non-endemic native
<i>T. uniflora</i> Pers. [ <i>T. anthylloides</i> Webb]	J. Dalton Hooker lecta	No located in K	- / Non-endemic native
<i>Tetraena simplex</i> (L.) Beier & Thulin [ <i>Zygophyllum simplex</i> L.], Zygophyllaceae	J.D. Hooker, n. 179	K001134618	Listed as “a maritime plant” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 179 / Non-endemic native
<i>Tornabenea annua</i> Bég. (Parl.) Parl. [ <i>Tetrapleura</i> sp.], Apiaceae	J.D. Hooker	K000272603, K001134170	K000272603 is for J.D. Hooker 55; K001134170 is for J.D. Hooker 140 / Endemic
<i>Tribulus cistoides</i> L., Zygophyllaceae	J.D. Hooker, n. 159	K000417032	- / Introduced
<i>T. terrestris</i> L.	J. Dalton Hooker, n. 157	No located in K	- / Introduced

<i>Tricholaena teneriffae</i> (L.f.) Link	J.D. Hooker, n. 84	K001134461,	- / Non-endemic native
[ <i>Saccharum teneriffae</i> L.f.], Poaceae		K001134463	
<i>Triumfetta pentandra</i> A. Rich., Malvaceae	J. Dalton Hooker, n. 177	K000241987	Listed as an unknown taxon in letter that J.D. Hooker wrote to his father from Santiago, under collection number 177 / Introduced
<i>T. rhomboidea</i> Jacq. [T. lappula L.]	J. Dalton Hooker, n. 191	No located in K	- / Introduced
Undetermined [ <i>Pennisetum lanuginosum</i> Hochst.], Poaceae	J. Dalton Hooker, n. 95	No located in K	- / -
Undetermined	Unreported	No located in K	Listed as “fungus” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 66 / -
Undetermined	Unreported	No located in K	Listed as “Digitalis” in letter that J.D. Hooker wrote to his father from Santiago, under

			collection number 127 / -
Undetermined	Unreported	No located in K	Listed as “Cladonis” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 78 / -
Undetermined	Unreported	No located in K	Listed as “a lovely Fern [illeg.]” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 79 / -
<i>Verbascum capitis-viridis</i> Hub.-Mor. [ <i>Celsia betonicifolia</i> Desf.], Scrophulariaceae	J. Dalton Hooker, n.128	K001134220	- / Endemic
<i>Verbena officinalis</i> L., Verbenaceae	J. Dalton Hooker, n. 120	No located in K	- / Introduced
<i>Wissadula amplissima</i> (L.) R.E.Fr. [ <i>Abutilon periplocifolium</i> (L.) Sweet], Malvaceae	(J. Dalton Hooker,) n. 192	No located in K	- / Introduced

<i>Withania somnifera</i> (L.) Dunal [ <i>Physalis somnifera</i> L.], Solanaceae	J. Dalton Hooker, n. 119	No located in K	- / Non-endemic native
<i>Zinnia pauciflora</i> L., Asteraceae	J.D. Hooker, n. 206	No located in K	Listed as “a lovely Compositae herb” in letter that J.D. Hooker wrote to his father from Santiago, under collection number 206 / Introduced
<i>Zornia glochidiata</i> Rchb. ex DC. [Z. <i>angustifolia</i> Sm.], Leguminosae	J. Dalton Hooker, n. 143	K001041045	- / Introduced

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\*Taxonomy mostly follows Arechavaleta *et al.* (2005); names reported by Webb (1849) are indicated inside brackets.

†Biogeographical assignment of species to the “Introduced” or “Non-endemic native” is tentative and is mostly based on information provided by Arechavaleta *et al.* (2005). \*\*Specimen barcode refers to material housed in K.

## APPENDIX 1 – PART 3

### REFERENCES

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